

EXHIBIT 10

Affidavit of Richard J. Roby, P.E., Ph.D

fire science research and development programs related to propulsion and power generation, and fire safety.

3. My educational background includes an A.B. Degree in Chemistry (1977), a B.S. Degree in Chemical Engineering (1977), and a M.S. Degree in Mechanical Engineering with a Minor in Physical Chemistry (1980), all from Cornell University in Ithaca, New York. In January 1988, I obtained my Ph.D. Degree in Mechanical Engineering with coursework for a Minor in Physical Chemistry from Stanford University.

4. I previously worked as a Research Engineer in the Fuels and Lubricants Department of Ford Motor Company evaluating performance, emissions, and spill fire safety for a range of liquid motor fuels. I have taught and attended numerous programs, seminars, and courses in the fields of chemistry, chemical engineering, fire protection engineering, mechanical engineering, fire hazard analysis, and fire modeling, and have taught both undergraduate and graduate courses in the thermal-fluid sciences including Combustion, Thermodynamics, Fire Dynamics, Internal Combustion Engines, Experimental Methods in Thermal-Fluid Sciences, and Heat Transfer.

5. In addition to my private sector work, I served as Adjunct Professor for the Department of Fire Protection Engineering at the University of Maryland from 2003-2015, where I developed and taught a Master's level course in Advanced Fire Dynamics; and prior to that served as Assistant and then an Associate Professor of Mechanical Engineering at Virginia Polytechnic Institute & State University (Virginia Tech) from 1986 to 1992, where I taught both undergraduate and graduate courses related to Design, Chemistry, and Thermo-Fluid Sciences, and conducted and supervised research related to combustion and fire.

6. I served in the Ithaca, New York Fire Department from 1973 to 1979 as a Fire Fighter, Department Instructor, and Company Lieutenant. During my time in the Ithaca Fire Department, I completed courses from the New York State Fire Academy in the areas of Fire Investigation, Hazardous Materials, Initial Fire Attack, and Department Instructor. I also served in the public sector fire service from 1980 to 1981 with the Van Buren Township Volunteer Fire Department in Belleville, Michigan, where, in addition to my firefighting activities, I was responsible for filing the National Fire Incident Reporting System (NFIRS) reports regarding the nature and cause of incidents for the Department.

7. I have served as an Instructor on Fire Investigation for the Office of the Maryland State Fire Marshall, the Danish National Police, the International Association of Arson Investigators (IAAI), and the National Association of Fire and Explosion Investigators (NAFEI). I was appointed as a fire safety expert to the National Research Council Committee for the Decadal Survey on Biological and Physical Sciences in Space, a Congressionally mandated review of NASA space science programs, and was primary author for the section on Fire Safety in Chapter 10 of the report. I am a registered Professional Engineer in California in the field of Mechanical Engineering.

8. I have been a member of The Combustion Institute, The Society of Automotive Engineers, the National Fire Protection Association, the American Society of Mechanical Engineers, and a Fellow of the Society of Fire Protection Engineers, among other professional memberships. I have also served as a Member of the National Fire Protection Association Technical Committee 921 on Fire Investigations which produces NFPA 921 *Guide for Fire & Explosion Investigations*.

9. Over the last twenty-five years, on five different occasions I have been awarded the National Fire Protection Research Foundation's Harry B. Bigglestone Award for Excellence in Communication of Fire Protection Concepts for peer-reviewed papers published in *Fire Technology*. I hold more than 15 U.S. Patents including five related to processing liquid fuels for use in gas turbine power generation, and five related to fire safety. My peer-reviewed publications and presentations include numerous articles, presentations, and works on the subjects of fire investigation, fire suppression and protection, fire toxicology, combustion, burning rates, fire prevention, as well as the chemical properties and behavior of a wide variety of solid, liquid, and gaseous fuels during the combustion process, among numerous other issues. These are more particularly outlined in my Curriculum Vitae which is attached to my Rule 26 Report filed in this case.

10. During the course of my career, I have investigated, analyzed, and reported on hundreds of fire incidents, and have over 40 years of experience in both public and private sector work concerning the conducting, supervising, and reviewing of investigations relating to fire, arson, explosion, and combustion events, including cause and origin determinations, and examination and analysis of evidence from fire scenes. I am thoroughly familiar with the properties, characteristics, and behavior of the pressurized isobutane lighter fuel at issue in this case, as well as the mechanical fuel delivery and ignition operations of the Model J-26 disposable lighter distributed by BIC; and, I have been involved in the investigation and analysis of other fire events allegedly involving disposable lighters. Further information on my education, training, experience, and credentials, as well as published works, is contained in my previously-filed Affidavit, Curriculum Vitae and Rule 26 Report of March 30, 2022, all of which were filed as Collective Exhibit 2 in support of BIC's Motion for Summary Judgment, Motion to Exclude

Plaintiff's Experts, and in support of BIC's Motion to Dismiss and/or Exclude Evidence Due to Spoliation (Doc. 60-2). Based upon my education, training, and experience, as well as my personal knowledge and involvement in this case, I am qualified to offer the facts and opinions set forth in this affidavit; and, I further adopt the analyses, facts, and opinions expressed in my previously-filed affidavit and Rule 26 Report materials as if fully restated here.

11. I was initially engaged on behalf of BIC in this case to investigate and analyze the facts and circumstances relating to the fire incident that allegedly occurred at the Boze home on December 28, 2019, including facts and testimony related to the loss and spoliation of evidence by the Boze family. These issues were previously addressed at length in my initial affidavit. I am aware that the Court recently has issued an opinion raising additional issues concerning the loss, spoliation, and failure to document and preserve physical and testimonial evidence related to the Boze fire incident. This affidavit will address various issues raised by the Court and supplement my previous discussion and opinions on these issues.

12. The evidence in this case must be properly analyzed under the National Fire Protection Association 921 *Guide for Fire & Explosion Investigations*, NFPA 921, and the Scientific Method, as specifically applicable to fire incident investigations. NFPA 921 establishes the generally accepted and proper scientific methodology for the investigation, preservation of evidence, and determination of cause of fire incidents, as accepted by the fire investigation community and numerous State and Federal Courts. As such, NFPA 921 controls the investigation and analysis of this reported fire incident. I have examined the available evidence under NFPA 921 and the Scientific Method in order to determine the cause, origin, and contributing factors that resulted in the Boze fire incident; I have reviewed the physical, technical, and laboratory data and testing related to the Subject Lighter; and I have critically reviewed and evaluated the activity and

opinions offered by Plaintiff's declared expert witness Peter Layson, and the more recently-disclosed rebuttal expert Lila Laux. When the facts and evidence in this case are properly analyzed under NFPA 921, there is no reliable evidence: (a) that a BIC lighter was actually involved in the Boze fire; (b) that the Subject BIC Lighter later produced by the plaintiff and subjected to joint analysis by plaintiff and defendant was involved in the Boze fire; or (3) that any alleged defective or unreasonably dangerous condition of the Subject Lighter caused Ms. Boze's incident or injuries.

Fire Cause and Origin

13. As explained in greater detail in my previous affidavit and March 30, 2022 Report, proper analysis of the available, reliable evidence pursuant to NFPA 921 establishes that the cause of the Boze fire incident was improper handling of smoking materials by Ms. Boze. This is completely consistent with the known available evidence, and Ms. Boze's own repeated admissions on the day of the incident, and is not refuted by any known reliable evidence from this incident. Either the ignited dropped cigarette, the ignited dropped cigarette ash, or the ignited dropped match described in her medical records provided the source of ignition for Ms. Boze's shirt. The point of origin for the fire was the lower part of the upper left chest area of her shirt, coinciding with the localized area of Ms. Boze's burn injury. As Mr. Layson specifically testified and admits, neither the dropped ignited cigarette nor the dropped ignited match can be ruled out as the source of ignition for Ms. Boze's clothing. (Layson Supplemental Report of April 25, 2022 at p. 4-5; Layson Depo. p. 92). However, under NFPA 921 the Subject BIC Lighter finally produced by the plaintiff in this lawsuit over 2 years after the incident, can and has been eliminated as a source of ignition. Although Ms. Boze's son Billy Wayne Boze and Ms. Boze's daughter Deborah Teeple developed a theory soon after the incident that the Subject Lighter may have

ignited their mother's shirt, there is no reliable evidence connecting the Subject Lighter to the December 28, 2019 fire – nor is there any reliable evidence that a theoretical malfunction of the lighter was the actual source of ignition. These opinions and the factual and testimonial evidence supporting them, are set forth in detail in my previous affidavit.

Review of the deposition testimony in the case, including the depositions of Charlotte Boze's children, plaintiff daughter Deborah Teeples and son Billy Wayne Boze, further establishes:

- Neither Deborah Teeples nor Billy Boze witnessed what started the fire incident (Teeples Dep. pp. 9-10; Billy Boze Dep. pp. 37-38);
- Billy Boze did not see any lighter at the time of the incident (Billy Boze Dep. p. 48), much less the Subject Lighter;
- According to Ms. Teeples, her mother did not know what happened when they talked by phone on the day of the incident, only that her clothes had caught on fire. (Teeples Dep. p. 104). Billy also didn't give her any details or mention a lighter at that time. It was only later that day, after Billy claimed to have found a lighter in the house that did not immediately extinguish, that he and Debbie discussed the lighter and "he just talked about that, you know, had to have been what happened" (*Id.* p. 113). Ms. Teeples and Mr. Boze "kind of started putting 2 and 2 together" after Billy claimed to have later found the lighter, and came to the conclusion that the lighter must have caused the incident. (*Id.* p. 113). (Teeples Dep. p. 126);
- Billy was unable to identify the brand of the lighter he claims to have found, didn't know the history of it, or where or when it was purchased (Billy Boze Dep. pp. 24-

25, 31-33, 61); however, the lighter he described did not appear to be damaged, and had no burn marks or melted areas on it. (Billy Boze Dep. p. 61);

- The unidentified lighter that Billy claims to have found, was put on a kitchen windowsill with Ms. Boze's cigarettes on the day of the incident. According to Billy, this lighter later disappeared for an unknown period of time as multiple persons came and went from the house. Billy Boze does not know what happened to the lighter that he found the day of the incident during this period of time, how long it was gone, or where it went (Billy Boze Dep. p. 70);
- Billy could not confirm that the "Subject Lighter" later produced in the case, was the same lighter he claims to have found in the house on the day of the incident (Billy Boze Dep. p. 61);
- The cigarettes that Billy claims to have saved were never produced;
- Billy's later claim, during his deposition in December, 2021 that his mother commented on the way to the hospital that she "reckoned" her lighter may not have gone out because her shirt caught on fire (Billy Boze Dep. pp. 47-48), does not provide any reliable evidence related to the Subject Lighter, does not explain how any theoretical non-extinguished lighter (which was directly in front of her face), would have been placed in contact with her shirt, and is directly contradicted by Ms. Boze's repeated statements to medical providers that same morning and afterward that her dropped cigarette or dropped match caught her shirt on fire. This unsubstantiated statement, that Billy memorialized for the first time in his deposition almost 2 years later, also was never mentioned by Billy to any medical

provider on the day of the incident and was never repeated by his mother to any Medical Personnel.

The only witness to the actual initiation of the fire incident was Ms. Boze herself. Her statements of medical history make no mention of a non-extinguished lighter being involved in the incident. No witness can place the Subject Lighter in Ms. Boze's hands on the day of the fire; no witness, including Billy Boze, can confirm the Subject Lighter as being the same lighter allegedly found in the home at some later time after the incident; and no chain of custody documentation was created prior to April 2020 that could document the Subject Lighter's presence, identity, location, condition, or connection with this incident. As such, the Plaintiff's later-developed theory that the Subject Lighter somehow caused this incident amounts to unsupported speculation and conjecture, and is neither a reliable nor verifiable scientific hypothesis under NFPA 921 and the Scientific Method.

Spoilation of Evidence and Prejudice

14. Unfortunately, critical evidence and testimony related to the Boze fire was not documented or preserved to be examined and analyzed by BIC and its experts, and was either lost and destroyed. Specifically:

- Items relevant to the Boze fire incident included not only Ms. Boze's partially burned pajama shirt, but also other unburned pajama bottoms / clothing and shoes she was wearing, her cigarettes, her electric recliner chair, 2 side tables, her blankets, water bottle on the side table, any personal items, ashtray(s) and/or smoking materials on the side table, floor coverings, matches or lighters that may have been used as ignition sources, curtains, couch, lamp, and any other objects or surfaces within the room that could have contained or accumulated material

deposits related to ignition of the fire and /or the progression of the fire event. Also relevant within the home, would have been any other clothing or personal effects of Ms. Boze, other lighters or matches, flammable materials, burned surfaces, and any items containing ignition residues, fabric fibers, evidence of burn residues or scorch marks, or otherwise capable of containing trace evidence related to the incident.

- Of the above items, only the partially burned shirt and the mess where Billy Boze poured water on the floor to extinguish it, were cleaned up by Billy Boze on the day of the incident. Billy did not describe throwing any other evidence away. (Billy Boze Dep. pp. 58-60).
- Since Plaintiff acknowledges that Ms. Boze routinely smoked in her chair, other materials from this area, including but not limited to Ms. Boze's chair and blankets, as well as other clothing, bedding and bedclothes from her bedroom, also would be critical evidence for determining if this incident was a unique result of the use of the "Subject Lighter," or if Ms. Boze had previously mishandled smoking materials either in her chair or in her bedroom, leading to burn marks or scorch marks on any of the other materials that were not preserved and produced.
- Although plaintiff Deborah Teeples claimed under oath that Billy told her that the decedent's pajama shirt had been "discarded by the hospital" (Plaintiff Interrogatory Response No. 19), Billy Boze later admitted that he in fact had thrown the shirt away after he went back to the house. (Teeples Dep. pp. 19-20; Billy Boze Dep. pp. 57-58).

- Deborah and Billy “figured out what had happened” when Billy found a lighter on the floor later on the day of the incident, according to Deborah (Teeples Depo. p. 22). Within 3-10 days of the incident, according to Billy Boze he took a lighter he had found to his sister Deborah Teeples, who then turned it over to Morgan and Morgan attorneys. (Teeples p. 22).
- According to Morgan and Morgan attorneys, Deborah Teeples first called them on February 18, 2020.
- However, neither Ms. Boze, Ms. Teeples, their attorneys, nor the family ever documented, preserved, or photographed any of the remaining evidence or objects from the fire scene, or the house. In the weeks and months afterward, nobody ever came to investigate, take photos. or document any things that were there. (Teeples Dep. pp. 17-19; Billy Boze Dep. pp. 76-77);
- Instead, Charlotte Boze’s personal effects, furniture, and contents of the house where the fire occurred reportedly were either thrown away or sold after the fire, and the house was later sold. None of these items were ever photographed or documented on site, and none were ever saved or produced for inspection (Teeples Dep. pp. 17-19, 22; Billy Boze Dep. pp. 57-58).
- Although never documented or preserved, Ms. Boze’s chair from the fire was moved to Deborah Teeples’ house after the fire, where it remained for Ms. Boze’s use until it was eventually sold by Ms. Teeples. By the time of her deposition in December 2021, Ms. Teeples testified that “absolutely nothing” remained. (Teeples Dep. pp. 18-19).

- During this time, plaintiff's counsel Harris Yegelwel never went to the Boze home (Teeples Dep. p. 27), and apparently took no steps to save or document any evidence from the home, or evidence that was transferred to Deborah Teeples' house after the incident (other than the lighter). These items would have included not only here chair, but also presumably Ms. Boze's clothing and various personal effects that she would have needed while living at her daughter's house over the next 16 months.
- After becoming involved in the case in April 2020, plaintiff's expert Peter Layson also failed to visit and document the home and fire scene, failed to collect, examine, or preserve any physical evidence, and failed to instruct plaintiffs or their counsel to do so, in accordance with NFPA 921. Mr. Layson also failed to interview Ms. Boze or any of her family members or witnesses, and the family and their representatives failed to memorialize any testimony from Ms. Boze, the only witness with knowledge of how the fire started. They also failed to examine the home for alternative ignition sources or evidence of other burned objects or surfaces; failed to document the condition of or secure any of the physical items from the home (including chair, tables, blankets, furniture, smoking materials, ash trays, matches, lighters, clothing, floor coverings, cigarettes, or any other personal items); and failed to take any measurements or photographs of the alleged fire area.
- Mr. Layson also failed to examine and analyze any materials for evidence that Ms. Boze had been involved in previous improperly handled smoking material incidents, as demonstrated by burn marks or scorch marks on the chair, other materials around the chair, other clothing of Ms. Boze, or bedclothes and related

materials in Ms. Boze's bedroom, or other such marks or evidence elsewhere in the home.

- Ms. Boze, her family, attorneys, and retained expert witnesses also failed to report the fire incident to any investigating authority; failed to have anyone photograph the fire scene or any physical evidence; and failed to photograph, document, preserve, or establish a proper chain of custody for either the Subject Lighter or any other items from the home (including but not limited to Ms. Boze's cigarettes, matches, personal effects and furniture within the room in question, lighters, remains of matches and burned cigarette, or any of her clothing).
- Finally, the plaintiff, her counsel, and expert witnesses failed to notify BIC of the incident for almost 11 months, and the Boze home and contents were later sold or disposed of without notifying BIC and without any effort to document their condition.

Specific Standards that are potentially implicated in this situation include, but are not necessarily limited to, NFPA 921, ASTM E1188-11 (Collection and Preservation of Information and Items by a Technical Investigator); E806-07 (Examining and Preparing Items that Are or May Become Involved in Criminal or Civil Litigation); E1020-13e1 (Reporting Incidents that May Involve Criminal or Civil Litigation); E1459-13 (Physical Evidence Labeling and Related Documentation); and E1492-11 (Receiving, Documenting, Storing and Retrieving Evidence in a Forensic Science Laboratory). As a result, all of the critical factual and physical evidence surrounding the fire incident was destroyed and forever lost. All of this is addressed and analyzed in in my previous affidavit and March 30, 2022 Report, but these losses and failures to document and preserve physical and factual evidence, combined with the plaintiff's failure to report the

incident to any investigating authority or to BIC, not only violated NFPA 921 and various ASTM and industry standards, but also deprived BIC of vital information that could have been discovered and used to defend against the claims now made against it.

15. These failures also deprived BIC and its experts of the opportunity to conduct their own investigation while the evidence still existed. According to the plaintiff's interrogatory responses and deposition testimony of the family members, items in the den where this incident reportedly occurred, included at least Ms. Boze and all of her clothing, her electric recliner chair where she reportedly had been sitting, photos albums, blankets, two end tables, a coffee table, a sofa, a TV cabinet, and Ms. Boze's personal items, such as drinks, cigarettes, ash tray and smoking materials, which reportedly were kept on an end table beside her electric chair. If proper photos or video of the area had been taken, there would have been an actual record of where items were located and their condition, including the location of any burned items or burn residues. Further, if the incident had been reported to investigating fire authorities, and if BIC and its independent fire investigators had been notified before the room was altered and all these items were discarded, they could have conducted a thorough examination and documentation of the scene and its physical items; visual, microscopic, and chemical analyses of various objects and surfaces within the room, including Ms. Boze's remaining clothing, shoes, chair, blankets and other items; and could have located remains and residues of the partially burned cigarette and the match she reportedly used to ignite it. All of this information would have provided scientific evidence to help confirm the specific items involved, Ms. Boze's location when the fire began and her movements during the event, the details of the ignition sequence, and the events leading up to and during the actual fire. Fabric composition and ignition characteristics of not only her shirt but other clothing also could have been tested and confirmed, had they not been destroyed and this likewise would have

provided critical information about the potential ignition sources for this fire, as well as the likely ignition sequence.

16. Further, the presence or absence of other lighters, matches, and alternative ignition sources could have been confirmed, as well as the presence of any other fire-damaged clothing, furniture, surfaces, or other items within the home. This would have been critical evidence relevant to causation of the incident, and confirmation of Ms. Boze's medical statements that this incident was caused by dropping an ignited match, cigarette, or ash onto her shirt (as opposed to the claim that this was an isolated incident allegedly caused by a lighter). Homes of lifelong smokers often contain telltale evidence of their smoking habits, what ignition sources they use to light their cigarettes, their tendency to drop smoking materials onto other objects, clothing or surfaces, as well as trace evidence (chemical and microscopic) left behind from combustion reactions of matches (either paper or wood), the residues of chemical substances created in the combustion reaction, and the burned cellulose and charcoal fragments that are produced by such combustion. Some of the microscopic chemical evidence that can be left behind are fragments of phosphorus, silicates, potassium chlorate or other oxidizing agents, sulfur or antimony sulfide, and additional substances in the case of wooden matches. Microscopic traces of the various chemical combustion products from matches can become imbedded in furniture coverings, cracks, crevices, fabric material, in the weave of blankets and clothing items, and other objects in the vicinity of the ignition. This trace evidence often is not visible to the naked eye, but will remain until altered or destroyed. Larger fragments of Ms. Boze's partially burned cigarette and match also could have been trapped within the chair, blanket, fabrics, or other objects. These various fragments and substances can be physically recovered, identified, and scientifically analyzed using a number of analytical processes, including but not limited to stereomicroscopic examination, scanning

electron microscopy (SEM) and energy dispersive x-ray spectroscopy (EDS), gas chromatography, mass spectroscopy, and Fourier transform infrared spectroscopy (FTIR), among others. Utilizing all of this these methods and information, BIC and its investigators would have been able to develop a very clear record of this event and preserve that evidence for BIC's defense. Instead, the only piece of physical evidence remaining with any claimed connection to this location, is a single Subject Lighter -- which was not produced for over a year after the event, which shows absolutely no signs of being involved in a fire, and whose history, chain of custody, and actual involvement in the incident cannot be established.

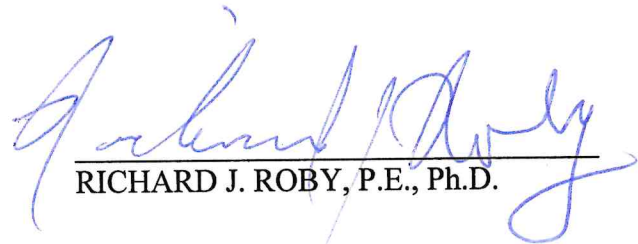
17. It would be difficult without ever having an opportunity to examine the home and the fire scene before its alteration and contents being discarded, for any fire investigator to conclude precisely which of the above items would have proved to have the greatest evidentiary value. However, it is certain that the items outlined above and which were discarded or destroyed after the day of the fire, did have important evidentiary value to determining the actual cause and source of ignition of the Boze fire. The absence and destruction of this evidence has prejudiced BIC and its fire investigators from ever being able to discover physical evidence to disprove the plaintiff's theory that the "subject lighter" (as opposed to the ignited match and ignited cigarette that Ms. Boze herself admitted in her medical records) was the actual cause of the fire. Similarly, this same physical evidence could have been used to corroborate Ms. Boze's own statements to her medical providers about the source of ignition.

18. Finally, the failure of the plaintiff, her experts and attorneys to ever preserve or memorialize any testimony from Ms. Boze, who was the only witness to the initiation of the fire, is critically prejudicial. They had many months following the incident in which to do this, and both NFPA 921 and other industry standards establish the responsibility to preserve witness

testimony. It could very well be that Ms. Boze would have corroborated her own initial statements to medical providers about the cause of her burn incident, and that her testimony would have disproven plaintiff's later claims in the lawsuit. This entire situation in failing to preserve evidence and testimony flies directly in the face of NFPA 921 and the ASTM Standards related to fire investigation and evidence preservation, and has substantially prejudiced BIC's defense.

19. All of the opinions that I have offered in this case, whether by affidavit, deposition, or in my previously-filed Affidavit and Rule 26 Report, are stated to a reasonable degree of scientific and engineering certainty.

FURTHER AFFIANT SAITH NOT.


RICHARD J. ROBY, P.E., Ph.D.

Sworn to and subscribed before me this
20th day of October, 2023.


Notary Public

My Commission Expires: Oct 24, 2026

